



Report # 113251 Sample # 3

UGI Development Company

Received 05/21/2012

Date May 31, 2012

Serial Number: 475000A100B354A Substation Name: Design Type: Core Type Manufacturer: VT MFR. Year: 2009 Cooling System: ONAF Fluid Type: Mineral		Equipment Number: SS-13 Preservation System: Gas Blanketed Transformer Name: SST3 Transformer Type: Transformer Maximum kV: 66 Maximum MVA: 7 XFMR Oil Capacity: 1327 Gallons		Container Id: LAB ASSIGNED # IAK 407 Miscellaneous Id: Second Name: Sample Point: Main Tank Bottom Sequence #: Sample Date/By: 5/16/2012 2:30:00 PM JD, JR Appr Type: XFMR		Phase: 3 Ambient Temp °C: 24 Humidity: 42 Top Oil Temp °C: 29 Peak Temp °C: Fluid Level: Pressure PSI:			
LTC MFR/Model:		LTC Type:		LTC Tank Type:		LTC Capacity:		Filter LTC:	

**Dissolved Gas Analysis** The dissolved gas analysis is run in accordance with ASTM D 3612 and IEC 60567. Values are reported in ppm vol/vol at STP and calibrated with gas-in-oil standards. Values before August 15, 2002 are reported at NTP and calibrated with gas standards.

Report #	Sample Date	Top Oil Temp °C	Hydrogen (H2)	Oxygen (O2)	Nitrogen (N2)	Methane (CH4)	Carbon Monox. (CO)	Ethane (C2H6)	Carbon Dioxide (CO2)	Ethylene (C2H4)	Acetylene (C2H2)	Total Gas	COMB GAS	EST TCG %	C2H4/C2H2	Comb Gas Rate
113251	05/16/2012	29	11	8280	73900	2.2	91	0	796	0	0	83080	104	0.11	0.00	0.20
111090	02/21/2012	13	8.7	8340	67200	1.9	76	0	821	0	0	76448	87	0.10	0.00	0.11
104632	06/03/2011	28	9.7	10600	84300	0.9	48	0	570	0	0	95529	59	0.06	0.00	

There is a low volume of combustible gas present. The condition is of no immediate concern. It is recommended to resample in 1 year for units 69kV and below.

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# Oil Quality Tests

Report #	Sample Date	Top Oil Temp °C	Water Content ppm	Relative Saturation %	Color	D1816-1mm kV	Interfacial Tension mN/m	Neut. No. mgKOH/g	PF25C %	PF 100C %	Specific Gravity (Rel. Density)	Visual
113251	05/16/2012	29	10	13	L 0.5	38	39	0.01	0.340	7.590	0.885	Clear & Bright
111090	02/21/2012	13	3	7								
104632	06/03/2011	28	7	9	L 0.5	31	40	< 0.01	0.140	4.300	0.884	Clear & Bright

The water content is considered acceptable for this voltage class. The results indicate that the dielectric liquid is acceptable for continued in-service use.

## Additional Oil Quality Tests

Report #	Sample Date	Top Oil Temp °C	Sulfur, Corrosive Level (D 1275B)	Sulfur, Corrosive Level (D 1275B)
113251	05/16/2012	29	Non-corrosive	2d

Sulfur by D1275B is acceptable.